

ABSTRACT OF THE DISCLOSURE

The vertical axis wind turbine has two counter-rotating rotors mounted on first and second spaced apart vertical axes. Each rotor has a plurality of rotor blades extending generally inwardly from an outer circumference, the vertical axes being mounted on a support structure which is in turn rotatable on a third vertical axis on a platform. The third axis is spaced from a point midway between the first and second axes in a direction at 90 degrees to and forward from a line between the first and second axes. The vertical axis wind turbine further has a guide vane mounted on the support structure, having a vertex forward of the third vertical axis in the direction at 90 degrees from a line between the first and second axes. The guide vane has left and right symmetrical vane portions extending towards the rotors so as to direct airflow from wind primarily towards portions of the rotors outboard of the first and second axes. The guide vane also tends to keep the vertical axis wind turbine oriented with the guide vane's axis of symmetry pointing forwardly into the wind. Movable deflector flaps pivotally mounted adjacent opposite ends of the vane portions can deflect air at least partially away from the rotors. The structure of the wind turbine can support an unrelated structure such as a restaurant.